

# Resources and Sustainability

This DVD has been provided as a **free** sample.

Please try out this video (and associated activities) in your classroom.

If you find this useful there are many other titles available on the 3 DVDs including:

- ⇒ Gold Resource
- ⇒ Wool Resource
- ⇒ Canterbury Water and Irrigation Use for Dairy
- ⇒ Exhaust Emissions
- ⇒ Lost Generation – Debt Culture
- ⇒ Home Ownership
- ⇒ EWaste
- ⇒ Fossil v BioFuel
- ⇒ Dio-Diesel from Algae
- ⇒ Improving access to Clean Water
- ⇒ Climate Change in New Zealand
- ⇒ Reducing Emissions
- ⇒ Benefits of Climate Change
- ⇒ Environmental Policy



The activity book has been written for the new curriculum, and is based on the New Zealand case studies on the DVDs. It has 86 pages of activities in full colour and was published and printed here in New Zealand.

To order copies of the DVDs and/or Activity Book please email [smoir@ihug.co.nz](mailto:smoir@ihug.co.nz)

**Resources and Sustainability DVD = \$40**

**Resources and Sustainability 2 DVD = \$40**

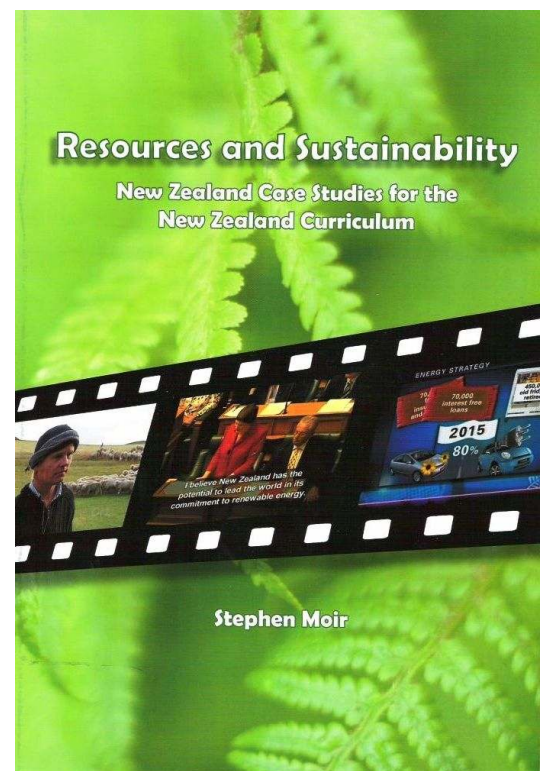
**Climate Change DVD = \$40**

**Resources and Sustainability Activity Book with Solutions = \$45**

**Resources and Sustainability Activity Book (10+ order) = \$28**

More details about these products are also available on the website at:

[www.resourcesandsustainability.co.nz](http://www.resourcesandsustainability.co.nz)



## Case Study of Management of a New Zealand Resource – The Manawatu River



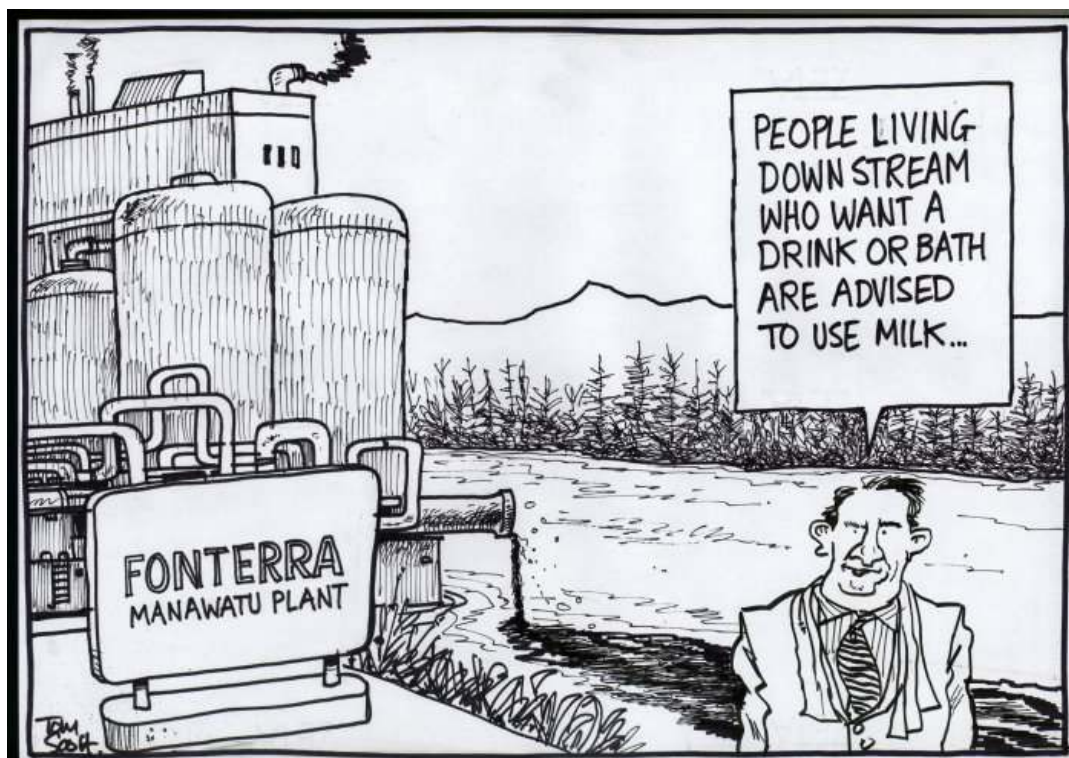
Watch Title 5 “Pollution of Manawatu River” from Campbell Live (22/08/2006) on the “Resources and Sustainability” DVD video resource.

The Manawatu River is one of the most polluted rivers in New Zealand.

Palmerston North and Fielding discharge human and industrial waste into the Manawatu River.



### Activity 3.3 – Cartoon Interpretation



Source: Tom Scott, 9 August 2006

1) How is Fonterra being portrayed in this cartoon?

---

---

2) What does the comment “People living down stream who want a drink or bath are advised to use milk” mean?

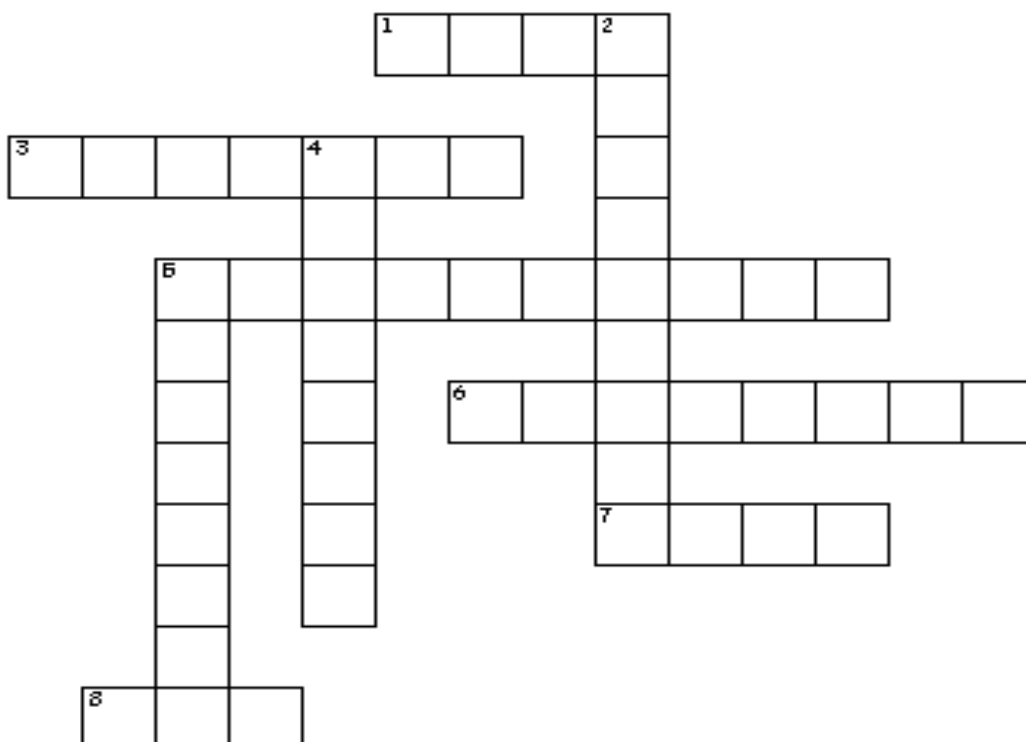
---

---

---

### Activity 3.4 – Pollution of the Manawatu River Crossword

As you watch and listen to the DVD material, complete the statements below to find the clues to complete the crossword:



#### Across

1. The Fellmongery in Shannon that has failed 13 of its last 15 tests for pollutant levels in discharges to the Manawatu River.
3. Fertilizer and animal waste washes and \_\_\_\_\_ into the Manawatu River.
5. The main reason given by the HRC for degradation of water quality in the lower reaches of the Manawatu River.
6. Palmerston North and \_\_\_\_\_ discharge sewage into the Manawatu River.
7. The Manawatu River is graded E by \_\_\_\_\_.
8. The dairy company discharges 8500 cubic metres every \_\_\_\_\_ into the Manawatu River during the winter months

#### Down

2. The cost in millions that the dairy company would have to pay to treat sewage on land.
4. The name of the regional council which has a statutory obligation to protect the river.
5. The company which can put waste into the Manawatu river for another 15 years.

## Learning Intention

By the end of this unit you will have identified and examined conflicting values towards the environment.

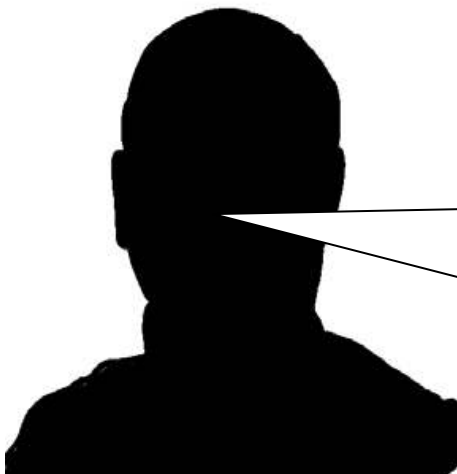
### Activity 3.5 – Conflicting Values

As you watch Title 5 from the “Resources and Sustainability” DVD, you will notice that there are people speaking who have conflicting values towards the environment.

In this activity you need to complete the speech bubbles to summarise the economic values held by Fonterra and the opposing conservation values held by the objector.



Fonterra – economic argument



Objector – conservation argument

## Learning Intention

By the end of this unit you will have completed research on the management of the Manawatu River by selecting relevant information, identifying source material and presenting findings as a brochure.

### Activity 3.6 – Research

Pollution of the Manawatu River has been a concern for local residents for a number of years now.

Your task is to find information and present a brochure to summarise your findings.

You will need to find:

1. A political cartoon on this issue or a related issue.
2. News items where people have expressed their concerns.
3. How the local government (council) is responding to these concerns and what action they are taking.

You should then present your findings as a **brochure**.

The title page should have "Management of a New Zealand resource – the Manawatu River" as the title, with a suitable illustration.

The other 3 faces would deal with "Concerns", "Actions Taken", and "Outcomes".

### Hints for finding articles and cartoons

- ☐ You could search through the TVNZ archive – specify article from 2005 to 2008 and use "Manawatu river" or "Manawatu river pollution" as your keywords  
<http://tvnz.co.nz/content/?q=manawatu%20river&style=tvnz>
- ☐ Use the NZ newspapers site at <http://www.stuff.co.nz/> and use "Manawatu river" or "Manawatu river pollution" as your keywords.
- ☐ Find political cartoons through the stuff website link at:  
<http://www.stuff.co.nz/0a17216.html>

### Possible Sources:

"Angry resident says city must clean up water"  
By KATIE CHAPMAN - Manawatu Standard  
Monday, 04 February 2008  
<http://www.stuff.co.nz/stuff/4386989a7693.html>

"Hundreds march against river pollution"  
Oct 14, 2006  
<http://tvnz.co.nz/view/page/423466/856247>



## Source Details:

When collecting information it is important to collect the source details so you can acknowledge these with a bibliography.

This format will help you to do this:

Type of Source		
<input type="checkbox"/> Primary	<input type="checkbox"/> Secondary	
	<input type="checkbox"/> Published	<input type="checkbox"/> Electronic
Source Details		
Primary	Published	Electronic
Name and Title E.g. Mr S Moir	Author's family name/surname:	Author:
Place interviewed E.g. Christchurch	Author's given name/Christian name or initials:	Title of the article:
Date Interviewed	Title ( <u>underlined</u> if handwritten, <i>italicised</i> if word-processed):	Site's address or URL:
	Publisher:	Date the site was accessed:
	Date of publication (look for the copyright symbol © on the publisher's page):	
	Page number(s):	
Research Question or Key Historical Idea(s) evidence relates to		
Details of Evidence (Written and/or Visual)		

# Social Science Skills

## Self - Assessment

The skills highlighted with a ★ are essential skills to develop for success in NCEA studies.

In the spaces provided give yourself a grade by ticking the 😊, 😐 or 😞 face to indicate how well you completed each skill:

	Skill	Activity Page(s)	😊	😐	😞
	Using a graphic organiser to organise information	47, 72			
	Using a T Chart	51, 59			
	Flow Charts	16, 58, 66			
	Brainstorm/Mind Map	37, 47			
	Crossword	13, 14, 28, 56, 57, 63, 64, 70, 71			
	Research	11, 12, 30, 54			
	Presentation	12, 30, 49, 52, 54, 65 76 77			
★	Recording Source Details accurately	12, 30, 31			
	Cartoon Interpretation	27, 32			
★	Social Decision Making	48			
	Letter Writing	53			
★	Exploring Values and Perspectives	29, 60 61 62			
	Debating	25, 26			
★	Developing a logical argument – paragraph writing	24, 26, 33, 34, 67, 68, 74, 75			
★	Demonstrating understanding of Social Studies Concepts and Important Geographic Ideas	33, 34, 67, 68			
	Questionnaire Design	38, 39, 40			
★	Mapping	7, 8, 9, 21			
★	Drawing Graphs	17, 18, 19, 36			
	Calculation	43, 69			
	Cost-Benefit Analysis	51			
	Budgeting	43			
	Setting Financial Goals	41			
	Design	65, 76			
	Evaluation	74, 75			
	Social Action	53, 76, 77			




# Learning Intentions

## Self - Assessment

In the spaces provided give yourself a grade by ticking the ☹, 😐 or 😊 face to indicate how well you completed and understood the work related to each learning intention:

Chapter	Learning Intentions	☹	😐	😊
<b>1</b> <b>Resources of New Zealand</b>	Identify a range of resources available and describe the difference between a natural resource and a cultural resource			
	Categorise, locate and map the distribution of some of the resources of New Zealand			
<b>2</b> <b>New Zealand Resources Case Studies</b>	Investigate in depth at least one non-renewable resource in New Zealand			
	Demonstrate understanding of the concept of supply and demand			
	Illustrate components of the gold production process			
	Compare and contrast the value of gold and shares as investments over time			
	Investigate in depth at least one renewable resource in New Zealand			
<b>3</b> <b>Management of New Zealand's Environmental Resources</b>	Understand why environmental resources have significance and value for people and the different approaches people have towards the use and/or management of environmental resources in New Zealand			
	Compare, contrast and articulate different values positions people have towards the use and management of environmental resources			
	Identify and examine conflicting values towards the environment			
	Complete research on the management of the Manawatu River by selecting relevant information, identifying source material and presenting findings as a brochure			
	Interpret a cartoon and identify conflicting values towards the environment			
	Demonstrate understanding of Social Studies Concepts and Important Geographic Ideas by constructing an argument for sustainability			
<b>4</b> <b>Management of Personal Financial Resources</b>	Understand the different approaches people have towards the use and/or management of financial resources in New Zealand and the consequence these approaches have for individuals and society			
	Design a questionnaire, trial it and carry out a social survey on affluenza			
	Balance a budget on a limited income and set financial goals with means to achieve these			
	Identify factors that have contributed to falling home ownership rates in New Zealand, and evaluate whether or not you could afford to buy an average house on an average income			



Chapter	Learning Objective			
<b>5</b>  <b>Possible Solutions for the Future</b>	Demonstrate understanding of what sustainability is and how we can make a difference through sustainable practices			
	Understand the financial and social consequences of continuing to burn fossil fuels and the benefits of using alternative fuels			
	Identify and evaluate possible sources of renewable energy in New Zealand			
	Identify and illustrate components of the process that converts an abundant resource into a scarce resource			
<b>6</b>  <b>Climate Change</b>	Identify the implications for people resulting from climate change and the response of local government			
	Identify different views on climate change and locate these on a values continuum with clear and valid reasoning			
	Identify the costs and opportunities presented by the challenge of climate change and evaluate how people have responded to this challenge			
	Describe how our national government has responded to the challenge of climate change with legislation and evaluate the effectiveness of this legislation			
	Design and create a short film to promote sustainable practices			

# Curriculum Foci

The new curriculum encourages students to look to the future by exploring such significant **future-focussed issues** as **sustainability**, citizenship, **enterprise** and globalisation.

This resource is focussed on New Zealand settings with New Zealand case studies that are both current issues and **future-focussed issues**.

One of the key values of the new curriculum is **ecological sustainability**, which includes care for the environment. This resource was developed to help teachers to engage students in issues around **sustainability**.

Teachers of **Social Studies**, **Geography** and **Education for Sustainability** will find this resource invaluable.

## Social Studies

The new curriculum is divided into four conceptual strands – this resource focuses on two of these four conceptual strands (Place and Environment and The Economic World) with a strong focus on the L5 Achievement Objective that reads:

*“Understand how people’s management of resources impacts on environmental and social sustainability”*

The activities in this book have been designed to meet the requirements of Level 5 Social Science Achievement Objectives and prepare students well for NCEA studies with overlap with Level 6 Geography, Social Studies and History skills.

### Level 5 Social Studies Achievement Objectives

Achievement Objective	Relevant DVD Titles	Relevant Activity Pages
Understand how people’s management of resources impacts on environmental and social sustainability	<ul style="list-style-type: none"> <li>• “Resources and Sustainability” Title 3 to 10</li> <li>• “Resources and Sustainability 2” Title 2 to 8, 14, 15 and 18</li> <li>• “Climate Change” Title 1, 2, 4, 6, 7, 9 and 13</li> </ul>	<p>p.27 to 34</p> <p>p.49 to 58</p> <p>p.59 to 77</p>
Understand how economic decisions impact on people, communities and nations	<ul style="list-style-type: none"> <li>• “Resources and Sustainability 2” Title 1, 2, 7</li> <li>• “Climate Change” Title 1, 5 and 9</li> </ul>	<p>p.35 to 37</p> <p>p.63 to 65</p> <p>p.70 to 75</p>
Understand how people seek and have sought economic growth through business, enterprise and innovation.	<ul style="list-style-type: none"> <li>• “Resources and Sustainability 2” Title 8 and 14</li> <li>• “Climate Change” Title 2 and 10</li> </ul>	<p>p.55 to 68</p> <p>p.65 and 66</p>
Understand how the ideas and <b>actions</b> of people in the past have had a significant impact on people’s lives.	<ul style="list-style-type: none"> <li>• “Resources and Sustainability” Title 5, 7, 8 and 9</li> <li>• “Resources and Sustainability 2” Title 13 to 16</li> <li>• “Climate Change” Title 1, 4 and 6</li> </ul>	<p>p.27, 28, 30 and 31</p> <p>p.63 and 64</p>

## Level 4 Social Studies Achievement Objectives

Achievement Objective	Relevant DVD Titles	Relevant Activity Pages
Understand how people participate individually and collectively in response to community challenges.	<ul style="list-style-type: none"> <li>• “Resources and Sustainability” Title 5, 7 and 8</li> <li>• “Resources and Sustainability 2” Title 17 and 18</li> <li>• “Climate Change” Title 2, 4, 5, 6, 7, 9, 13 and 14</li> </ul>	<p>p.27 to 34</p> <p>p.66 to 68 p.70 to 75</p>
Understand how exploration and innovation create opportunities and challenges for people, places and environments	<ul style="list-style-type: none"> <li>• “Resources and Sustainability 2” Title 8 and 14</li> <li>• “Climate Change” Title 2 and 10</li> </ul>	<p>p.55 to 58</p> <p>p.66</p>

## Essential Learning about New Zealand Society

Students completing activities from this book will have opportunities to develop their knowledge and understandings about New Zealand society through studying:

- ☐ Changing patterns of resource and land use
- ☐ Current events and issues within New Zealand
- ☐ Changing patterns of economic activity and trade
- ☐ The physical environment of New Zealand and how people interact with the environment
- ☐ The location and significance of important natural and cultural features of the landscape

## Key Competencies

Examples of skills covered in this resource as they relate to the key competencies:

Key Competency	Activity/Skill	Activity Page(s)
Thinking	<ul style="list-style-type: none"> <li>• Social Decision Making</li> <li>• Demonstrate understanding of concepts and ideas</li> <li>• Evaluation</li> </ul>	<p>48</p> <p>33, 34</p> <p>67, 68</p> <p>74, 75</p>
Using language, symbols and texts	<ul style="list-style-type: none"> <li>• Design and presentation tasks - communicating information, experiences and ideas.</li> </ul>	<p>11, 12</p> <p>30</p> <p>54</p> <p>65</p> <p>76, 77</p>
Managing Self	<ul style="list-style-type: none"> <li>• Setting Financial Goals</li> <li>• Budgeting</li> </ul>	<p>41</p> <p>43</p>
Relating to Others	<ul style="list-style-type: none"> <li>• Debating – listening, recognising different points of view, negotiating and sharing ideas</li> </ul>	25, 26
Participation and Contribution	<ul style="list-style-type: none"> <li>• Social Action Letter – participating in community, balancing rights, roles and responsibilities and contributing to the quality of social, cultural, physical and economic environments.</li> </ul>	53

# Geography

This resource supports teaching and learning towards the following standards:

## Geography NCEA L1

AS90204 *“Describe resource use in a farming or mining context”*

AS90207 *“Describe a contemporary geographic issue and evaluate courses of action”*

AS90208 *“Describe a global geographic topic”*

There is an assessment task available on the TKI website entitled

“Environmental Threats to Planet Earth” which can be found at:

[www.tki.org.nz/r/ncea/geo1\\_7Ev1\\_26aug04.doc](http://www.tki.org.nz/r/ncea/geo1_7Ev1_26aug04.doc)

## Geography NCEA L2

AS90333 *“Explain disparities in development within or between countries”*

AS90336 *“Explain a contemporary geographic issue and evaluate courses of action”*

AS90337 *“Explain a geographic topic at a global scale”*

## Geography NCEA L3

AS90707 *“Analyse a geographic topic at a global scale”*

AS90706 *“Analyse a contemporary geographic issue and evaluate courses of action”*

There is an assessment task available on the tki website entitled “Under Pressure: Sustainable Management of Popular Places” which can be found at:

[www.tki.org.nz/r/ncea/geo3\\_6Av3\\_17jan06.doc](http://www.tki.org.nz/r/ncea/geo3_6Av3_17jan06.doc)

# Education for Sustainability

This resource supports teaching and learning towards the following  
Education for Sustainability NCEA L2 Standards:

- 2.1** *“Plan, implement and evaluate a personal action that will contribute towards a sustainable future”*
- 2.2** *“Describe the consequences of human activity within a biophysical environment in relation to a sustainable future”*
- 2.3** *“Describe world views, how these are expressed through practices and activities and the consequences for a sustainable future”*
- 2.4** *“Describe values and associated behaviours in relation to a sustainable future”*
- 2.5** *“Describe aspects of sustainability in relation to a sustainable future”*
- 2.6** *“Work co-operatively to develop and present a strategy or design for sustainability in response to a future scenario”*

# Useful Links

## Carbon Zero Calculators

<http://www.carbonzero.co.nz/calculators/index.asp>

## Climate Change: State of the Earth video

<http://video.nationalgeographic.com/video/player/environment/environmental-threats-environment/state-of-the-earth/climate-change.html>

## Conservation information by region in New Zealand

<http://www.doc.govt.nz/templates/ByRegionLanding.aspx?id=32100>

## Encyclopedia of New Zealand

<http://www.teara.govt.nz/>

## Environmental Issues in New Zealand

<http://www.mfe.govt.nz/issues/>

## Environmental Monitoring

<http://www.emap.rsnz.org/>

## Environment Canterbury

<http://www.ecan.govt.nz/Protection+and+Education/Environmental+Education/>

## Enviroschools

<http://www.enviroschools.org.nz/>

## Geography at the Movies

<http://www.geographyatthemovies.co.uk/>

## Geography Skills

<http://www.bbc.co.uk/schools/gcsebitesize/geography/>

## Global Issues

<http://www.globaled.org.nz/>

## Global Research and Statistics

<http://www.nationmaster.com/index.php>

## Maps and more

<http://www.nationalgeographic.com/>

## New Zealand Newspapers

<http://www.stuff.co.nz/>

## Social Studies Online

[http://www.tki.org.nz/r/socialscience/curriculum/SSOL/index\\_e.php](http://www.tki.org.nz/r/socialscience/curriculum/SSOL/index_e.php)

## Virtual Field Trips in New Zealand

<http://www.learnz.org.nz/index.php>